

What is claimed is:

1. A method of adding a device to an automation or multimedia network, said method comprising the steps of:

binding said device as a first device to be bound when said device is the first device to be installed in said network;

binding said device as an additional device to be bound when said device is not the first device to be installed in said network; and

binding said device as an existing device to be bound when said device was previously installed in said network.

2. A method of installing and binding a device previously wired into an automation or multimedia network when said device is the first device to be installed in said network, said method comprising the steps of:

placing said device in a first-device installation mode of operation;

assigning to said device a domain ID having an associated length and which is not in use by any other device on said network;

assigning to said device a subnet number and a device ID number; and

generating an indication to indicate that the installation of said device onto said network is complete.

3. The method according to claim 2, wherein said step of placing said device in a first-device installation mode of operation comprises pressing an holding a pushbutton switch on said device.

4. The method according to claim 2, wherein said step of placing said device in a first-device installation mode of operation comprises receiving a command from a local management tool connected directly to said device.

5. The method according to claim 2, wherein said step of placing said device in a first-device installation mode of operation comprises receiving a command from a remote management tool connected remotely over said network.

6. The method according to claim 2, wherein said step of placing said device in a first-device installation mode of operation comprises setting a visual or audible indication confirming that said device is in said installation mode of operation.

7. The method according to claim 2, further comprising the step of generating an error indication if said device was previously installed.

8. The method according to claim 2, wherein said step of assigning to said device a domain ID comprises the steps of:

querying said network using said assigned domain ID;

listening for a response to said query; and

assigning a new domain ID different than the original domain ID in the event a response is received within a predetermined time period.

9. The method according to claim 2, wherein said step of assigning to said device a domain ID comprises the steps of:

querying said network using said assigned domain ID;

listening for a response to said query;

assigning a new domain ID different than the original domain ID in the event a response is received within a predetermined time period; and

querying said network using said assigned domain ID at least an additional two times in the event a response is not received within a predetermined time period.

10. A method of installing and binding a new device previously wired into an automation or multimedia network when said device is other than the first device installed in said network, said method comprising the steps of:

placing said device in an additional-device installation mode of operation;

placing address information of a previously installed and bound device onto said network;

receiving said address information by said new device to be installed and updating its domain and subnet address information in accordance therewith;

assigning a device ID number to said new device;

generating an indication to indicate that the installation of said new device onto said network is complete;

installing and binding zero or more additional new devices to said new device; and

installing and binding zero or more existing devices to said new device.

11. The method according to claim 10, wherein said step of placing said device in an additional-device installation mode of operation comprises pressing an holding a pushbutton switch on said new device.

5 12. The method according to claim 10, wherein said step of placing said device in an additional-device installation mode of operation comprises receiving a command from a local management tool connected directly to said new device.

10 13. The method according to claim 10, wherein said step of placing said device in an additional-device installation mode of operation comprises receiving a command from a remote management tool connected remotely over said network

14. The method according to claim 10, wherein said step of placing said device in an additional-device installation mode of operation comprises setting a visual or audible indication confirming that said device is in said installation mode of operation.

15 15. The method according to claim 10, further comprising the step of binding said new device if said new device was previously installed.

16. The method according to claim 10, wherein said step of receiving said address information comprises the steps of:

waiting for reception of said address information sent from said previously installed and bound device; and

20 generating an error indication in the event no response is received after expiration of a predetermined time period.

17. The method according to claim 10, wherein said step of assigning a device ID number to said new device comprises the steps of:

querying said network using said assigned device ID number;

25 listening for a response to said query; and

assigning a new device ID number different than the original device ID number in the event a response is received within a predetermined time period.

18. The method according to claim 2, wherein said step of assigning a device ID number to said new device comprises the steps of:

querying said network using said assigned device ID number;
listening for a response to said query;
assigning a new device ID number different than the original device ID number in the
event a response is received within a predetermined time period; and
5 querying said network using said assigned device ID number at least an additional
two times in the event a response is not received within a predetermined time
period.

19. The method according to claim 10, wherein said step of installing and binding
additional new devices comprises the steps of:

10 placing said additional new device in an additional-device installation mode of
operation;
placing address information of said new device onto said network;
receiving said address information sent by said new device by said additional new
device to be installed;
15 updating domain and subnet address information in said additional new device in
accordance with address information received from said new device;
assigning a device ID number to said additional new device; and
generating an indication associated with said additional new device to indicate that the
installation of said additional new device onto said network is complete.

20 20. The method according to claim 10, wherein said step of installing and binding an
existing device comprises the steps of:

25 sending a message incorporating a first home profile from said existing device to said
new device;
updating a second address table within said new device in accordance with said first
home profile;
sending a message incorporating a second home profile message from said new
device to said existing device;
updating a first address table within said existing device in accordance with said
second home profile;
30 generating an indication associated with said existing device to indicate that the
installation and binding of said existing device is complete.

21. A method of binding a first existing device into an automation or multimedia network, said method comprising the steps of:

placing said first existing device in an existing-device mode of operation;

receiving at said first existing device a confirmation message generated by said
5 second existing device;

sending a first message incorporating a first home profile from said first existing
device to said second existing device;

updating a second address table within said second existing device in accordance with
said first home profile;

10 sending a second message incorporating a second home profile message from said
second existing device to said first existing device;

updating a first address table within said first existing device in accordance with said
second home profile;

15 generating an indication associated with said first existing device to indicate that the
installation and binding of said first existing device is complete.

22. The method according to claim 21, wherein said step of placing said first existing
device in an existing-device mode of operation comprises pressing an holding a pushbutton
switch on said first existing device.

23. The method according to claim 21, wherein said step of placing said first existing
20 device in an existing-device mode of operation comprises receiving a command from a local
management tool connected directly to said first existing device.

24. The method according to claim 21, wherein said step of placing said first existing
device in an existing-device mode of operation comprises receiving a command from a
remote management tool connected remotely over said network

25. The method according to claim 21, wherein said step of placing said first existing
25 device in an existing-device mode of operation comprises setting a visual or audible
indication confirming that said first existing device is in said installation mode of operation.

26. The method according to claim 21, wherein said step of receiving a confirmation
message comprises the steps of:

30 waiting for reception of said confirmation message sent from said second existing
device; and

generating an error indication in the event no response is received after expiration of a predetermined time period.

27. A method of adding a CEBus compatible device to a CEBus network, said method comprising the steps of:

5 issuing a connect command to a context;

determining whether said context is in identify house mode and indicating hunting if it is not;

hailing for a house code and subsequently for an unused unit address; and

10 indicating the occurrence of an error in the event a unique address is not found within a predetermined time period.

28. A method of adding a CEBus compatible device to a CEBus network, said method comprising the steps of:

receiving a connect command by a provider;

15 hailing so as to determine whether another provider on the same house code is already in connecting mode;

indicating with said context that no other provider on the same house code is already in connecting mode;

indicating the occurrence of an error in the event another provider on the same house code is already in connecting mode;

20 entering connect mode by said context for a specified period of time; and

answering connection hails to house code with unit address zero corresponding to said provider.

29. A method of adding a CEBus compatible device to a CEBus network, said method comprising the steps of:

25 receiving a connect command by a listener;

hailing so as to search for a provider in connecting mode;

swapping connection packets between the context and the connecting provider;

indicating ready if the swap was successful; and

30 indicating the occurrence of an error in the event no provider is found, the connection is rejected or the swap was not successful.

30. A method of adding a first provider and listener context to a CEBus network, said method comprising the steps of:

issuing a first-in-home context;

issuing an identity house command;

issuing a connect command to said provider context and waiting for connecting indication;

issuing connect command to the listener context and waiting for a ready indication;

repeating said step of issuing connect command to a listener context for each additional listener;

issuing a stop command and indicating ready.

31. A method of adding additional devices and adding additional connections to a CEBus network, said method comprising the steps of:

issuing an identity house command;

issuing a connect command to provider context and waiting for connecting indication;

issuing connect command to the listener context and waiting for ready indication;

repeating said step of issuing connect command to a listener context for each additional listener;

issuing a stop command to the new provider and to the device in identifying house mode.